

Project N	Name: KD	HE Neodesha	a, KS	Project I	Number: 8	80435			Well Number: MW-144					
Project I	nformatio	n				Elevatio	n of Moni	toring We						
Facility N	lame: Forr	ner Refinery/E	3P Remediati	on Building	9	Ground Su	ırface Eleva	tion (GS):	792.74					
Location:	37.41387	798, -95.6892	25602			Top of Cas	sing Elevation	on (TOC):	795.41					
Well Info	rmation					Borehole	Borehole Volume Calculation							
Date Wel	ll Installed	10/21/2014				Water Co	olumn =	21.37	' feet					
Total Dep	oth of Wel	!	25.55	feet from	TOC	1 Boreho	ole Volume	e =	17.55 gallons					
Depth to	Top of Sc	reen:	7.61	feet from	TOC	5 Boreho	le Volume	s =	87.74 gallons					
Length of	f Casing S	creened:	17.94	feet		1 borehole v	olume (galloi	ns) = water le	evel thickness (ft) x .163 + (0.748 x saturated filter pack thickness); for 2-inc	h well				
Type of F	ormation	Screened:	Alluvium			initial height	of water colu	umn (ft) = tota	tal depth (ft) - initial depth to water (ft)					
Develop	ment Met	hod												
Equipme	nt:			Method [Description	n: Well sur	ged with p	ump. Well	ll purged dry during development.					
Surge	Χ	Bail												
Airlift		Pump	Χ											
Observa	tions Dur	ing Developr	nent					T						
		Depth to	Total	Fluid Re		Temp.	рН	S.C.	Fluid Appearance and Remarks					
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)	(turbidity, color, odor, etc.)					
10/29/14	910	4.18	NA											
10/30/14	0721	NA	NA	0	I	14.0	7.9	740	Clear					
10/30/14	0723	NA	NA	5	5	13.9	7.6	740	Dark brown					
10/30/14	0725	NA	NA	5	10	14.8	7.5	750	Dark Yellow Brown					
10/30/14	0728	NA	NA	10	20	14.5	7.3	760	Dark Yellow Brown					
10/30/14	0735	NA	NA	20	40	13.4	7.5	770	Light Yellow brown					
10/30/14	0743	NA	NA	30	70	13.4	7.4	780	Light Yellow brown					
10/30/14	0751	NA	NA	25	95	14.5	7.5	750	Light Cloudy Yellow					
									 					

Project Na	HE Neodesha	a	Project l	Number: 8	80435			Well Number: MW-145					
Project In	nformatio	n				Elevatio	n of Moni	toring We					
Facility Na	ame: Forr	ner Refinery/E	BP Remediati	on Building	9	Ground Su	ırface Eleva	ation (GS):	792.74				
Location: 3	37.40928	521, -95.6889	90581□			Top of Cas	sing Elevation	on (TOC):	795.74				
Well Infor	rmation					Borehole	• Volume	Calculatio	ion				
Date Well	Installed	10/16/2014				Water C	olumn =	16.96	6 feet				
Total Dept	Total Depth of Well: 30.68 feet from TOC) =	20.77 gallons				
Depth to T	Top of Sc	reen:	7.72	feet from	TOC	5 Boreho	le Volume	s =	103.83 gallons				
Length of	Casing S	creened:	22.96	feet		1 borehole v	olume (gallo	ns) = water le	level thickness (ft) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well				
Type of Fo	ormation	Screened:	Alluvium			initial height	of water col	umn (ft) = tota	otal depth (ft) - initial depth to water (ft)				
Developm	nent Metl	nod											
Equipmen	nt:			Method I	Description	n: Well sur	ged with p	ump. Wel	ell purged dry during development.				
Surge	Χ	Bail											
Airlift		Pump	Χ										
Observati	ions Dur	ing Developn	nent										
		Depth to	Total	Fluid R		Temp.	рН	S.C.	Fluid Appearance and Remarks				
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)) (turbidity, color, odor, etc.)				
10/29/14	905	13.72	NA										
10/30/14	0923	NA	NA	0	I	15.0	7.4	1060	Dark Yellow Brown				
10/30/14	0931	NA	NA	20	20	15.3	6.9	1140	Dark Yellow Brown				
10/30/14	0936	NA	NA	20	40	15.1	6.9	1190	Grayish Brown				
10/30/14	0944	NA	NA	20	60	14.9	7.0	1180	Grayish Brown				
10/30/14	0951	NA	NA	20	80	14.6	7.1	1190	Light Cloudy Gray				
		1		WELL P	URGED D	RY	<u> </u>	I					
									001204 Form WCLG				

Project N	Name: KD	HE Neodesha	a	Project l	Number: 8	80435			Well Number	: MW-146				
Project I	nformatio	n				Elevatio	n of Moni	toring We						
Facility N	lame: Forr	ner Refinery/E	3P Remediati	on Buildin	9	Ground Su	ırface Eleva	ation (GS):	793.39					
Location:	37.40930	310, -95.6911	17714□			Top of Cas	sing Elevation	on (TOC):	795.40					
Well Info	rmation					Borehole	Borehole Volume Calculation							
Date Wel	ll Installed	10/16/2014				Water C	olumn =	13.19	feet					
Total Dep	oth of Wel	l:	25.96	feet from	TOC	1 Boreho	ole Volume) =	16.	.97 gallons				
Depth to	Top of Sc	reen:	7.06	feet from	TOC	5 Boreho	le Volume	s =	84.	.84 gallons				
Length of	f Casing S	creened:	18.90	feet		1 borehole v	olume (galloi	ns) = water le	evel thickness (ft) x	.163 + (0.748 x saturated filter pack thickness); for 2-inch well				
Type of F	ormation	Screened:	Alluvium			initial height	of water colu	umn (ft) = tota	al depth (ft) - initial	depth to water (ft)				
Develop	ment Metl	hod												
Equipme	nt:			Method I	Description	n: Well sur	ged with p	ump. Well	l purged dry du	ring development.				
Surge	Χ	Bail												
Airlift		Pump	Χ											
Observa	tions Dur	ing Developn	nent			•								
		Depth to	Total	Fluid R		Temp.	рН	S.C.		Fluid Appearance and Remarks				
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)				
10/29/14	902	12.77	NA											
10/30/14	0847	NA	NA	0	I	12.9	7.3	940		Dark Yellow Brown				
10/30/14	0855	NA	NA	20	20	13.8	7.2	920		Yellow Brown				
10/30/14	0902	NA	NA	20	40	14.2	7.3	910		Yellow Brown				
10/30/14	0911	NA	NA	30	70	13.9	7.3	910		Light Cloudy White				
				WELL P	URGED D	RY		I						
 														
 														
 														
										001204 Form WCLODE 4				

Project Na	ame: KDH	E Neodesha		Project l	Number: 8	80435			Well Number: MW-147				
Project In	formation	1				Elevation of Monitoring Well							
Facility Na	ame: Forme	er Refinery/BF	Remediation	Building		Ground Su	urface Eleva	ition (GS):					
Location: 3	37.409280	60, -95.69265	880□			Top of Cas	sing Elevation	on (TOC):	795.60				
Well Infor	rmation					Borehole	e Volume	Calculatio	on				
Date Well	Installed:	10/21/2014				Water C	olumn =	16.60	0 feet				
Total Dept	th of Well:		29.06	feet from	TOC	1 Boreho	ole Volume	=	18.39 gallons				
Depth to T	Top of Scre	en:	9.06	feet from	TOC	5 Boreho	le Volumes	S =	91.93 gallons				
Length of	Casing Sc	20.00	feet		1 borehole v	olume (gallo	ns) = water le	level thickness (ft) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well					
Type of Fo	Alluvium			initial heigh	t of water col	umn (ft) = tot	otal depth (ft) - initial depth to water (ft)						
Developm	nent Metho	od											
Equipmen	ıt:			Method I	Description	ո։ Well sur	ged with pu	ımp. Well	ell purged dry during development.				
Surge	X	Bail											
Airlift		Pump	Χ										
Observati	ions Durin	g Developme	ent										
		Depth to	Total	Fluid R	emoved	Temp.	pН	S.C.	Fluid Appearance and Remarks				
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)	(turbidity, color, odor, etc.)				
10/29/14	858	12.46	NA										
10/30/14	0810	NA	NA	0	I	13.1	7.3	930	Dark Yellow Brown				
10/30/14	0819	NA	NA	20	20	13.6	7.4	830	Dark Yellow Brown				
10/30/14	0825	NA	NA	20	40	13.6	7.3	820	Light Yellow Brown				
10/30/14	0831	NA	NA	20	60	13.7	7.3	810	Light Yellow Brown				
10/30/14	0837	NA	NA	20	80	14.0	7.3	790	Cloudy White				
				WELL P	URGED D	RY	1	ı					
*from TOC unloss									004204 Form WCLODS				

*from TOC unless otherwise noted in Remarks

091294 Form WCI OP6-1

Project N	Name: KD	HE Neodesha	a	Project I	Number: 8	80435			Well Number: MW-148				
Project II	nformatio	n				Elevatio	n of Moni	toring We	ell				
Facility N	lame: Forr	mer Refinery/I	3P Remediati	on Building	J	Ground Su	ırface Eleva	ation (GS):	828.80				
Location:	37.43227	081 -95.6920	2900□			Top of Casing Elevation (TOC): 832.09							
Well Info	rmation					Borehole Volume Calculation							
Date Wel	ll Installed	: 10/21/2014				Water Co	olumn =	22.03	3 feet				
Total Dep	oth of Wel	l:	30.75	feet from	TOC	1 Boreho	ole Volume	€ =	21.16 gallons				
Depth to	Top of Sc	reen:	8.34	feet from	TOC	5 Boreho	le Volume	s =	105.80 gallons				
Length of	f Casing S	creened:	22.41	feet		1 borehole v	olume (gallo	ns) = water le	evel thickness (ft) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well				
Type of F	ormation	Screened:	Alluvium			initial height	of water col	umn (ft) = tota	tal depth (ft) - initial depth to water (ft)				
Develop	ment Met	hod											
Equipme	nt:			Method [Description	n: Well sur	ged with p	ump.					
Surge	Χ	Bail											
Airlift		Pump	Χ										
Observa	tions Dur	ing Developr	nent										
		Depth to	Total	Fluid Re	emoved	Temp.	рН	S.C.	Fluid Appearance and Remarks				
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(mS/cm)	(turbidity, color, odor, etc.)				
10/29/14	1102	8.72	NA										
10/29/14	1604	NA	NA	0	l	17.7	7.1	2.80	Dark Brown				
10/29/14	1606	NA	NA	5	5	17.2	6.9	3.00	Dark Brown				
10/29/14	1607	NA	NA	5	10	16.5	6.7	2.70	Dark Brown				
10/29/14	1610	NA	NA	5	15	16.6	6.7	2.70	Dark Yellow Brown				
10/29/14	1611	NA	NA	5	20	16.7	6.7	2.60	Dark Yellow Brown				
10/29/14	1613	NA	NA	5	25	16.1	6.7	2.60	Dark Yellow Brown				
10/29/14	1618	NA	NA	10	35	16.4	6.7	2.50	Dark Yellow Brown				
10/29/14	1622	NA	NA	10	45	16.2	6.6	2.50	Light Yellow Brown				
10/29/14	1626	NA	NA	10	55	16.5	6.6	2.50	Light Yellow Brown				
10/29/14	1630	NA	NA	10	65	16.5	6.8	2.60	Light Yellow Brown				
10/29/14	1634	NA	NA	10	75	16.5	6.7	2.50	Cloudy Yellow Brown				
10/29/14	1643	NA	NA	25	100	17.1	6.7	2.50	Cloudy Yellow Brown				
10/29/14	1646	NA ed in Remarks	NA	10	110	16.5	6.8	2.50	Cloudy White				

*from TOC unless otherwise noted in Remarks 091294 Form WCI OP6-1

Project I	Name: KD	HE Neodesha	Э	Project	Number: 8	80435			Well Nu	mber: MW-149			
Project I	nformatio	n				Elevation of Monitoring Well							
Facility N	lame: Forr	ner Refinery/E	BP Remediati	on Buildin	9	Ground Su	ırface Eleva	tion (GS):	822.84				
Location:	37.43193	417 -95.6859	6723□			Top of Cas	sing Elevation	on (TOC):	822.49				
Well Info	rmation				Borehole Volume Calculation								
Date We	ll Installed	: 10/22/2014				Water Co	olumn =	3.13	feet				
Total Dep	oth of Wel	<u> </u> :	28.46	feet from	TOC	1 Boreho	ole Volume	=		12.24 gallons			
Depth to	Top of Sc	reen:	13.50	feet from	TOC	5 Boreho	le Volume:	S =		61.19 gallons			
Length of	f Casing S	creened:	14.96	feet		1 borehole v	olume (gallor	ns) = water le	vel thicknes	s (ft) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well			
Type of F	ormation	Screened:	Alluvium			initial height	of water colu	umn (ft) = tota	al depth (ft)	- initial depth to water (ft)			
Develop	ment Met	hod											
Equipme	nt:			Method I	Description	n: Well sur	ged with p	ump. Well	purged o	lry during development.			
Surge	Χ	Bail											
Airlift		Pump	Χ										
Observa	tions Dur	ing Developr	ment										
		Depth to	Total	Fluid R	emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks			
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)			
10/29/14	1125	25.33	NA										
10/29/14	1710	NA	NA	0	I	16.2	7.0	1030		Dark Brown Gray, Sheen			
10/29/14	1711	NA	NA	3	3	17.3	6.9	1100		Dark Brown Gray, Sheen			
10/29/14	1714	NA	NA	2	5	16.8	6.9	1140		Dark Brown Gray, Sheen			
10/29/14	1718	NA	NA	5	10	16.9	7.0	1130		Dark Brown Gray, Sheen			
10/29/14	1720	NA	NA	2	12	16.6	7.0	1140		Light Brown Gray			
10/29/14	1722	NA	NA	3	15	16.6	7.0	1120		Light Gray			
10/29/14	1725	NA	NA	5	20	16.2	6.9	1170		Light Gray			
			Г	WELL P	URGED D	RY	T	T					
										004204 Form WCLODE 4			

Project N	lame: KD	HE Neodesha	a	Project l	Number:	80435			Well Number:	MW-150				
Project In	nformatio	n				Elevatio	n of Moni	toring We	ell					
Facility Na	ame: Forr	ner Refinery/E	BP Remediati	on Buildin	9	Ground Su	ırface Eleva	tion (GS):	818.78					
Location:	37.43139	456 -95.6848	4338□			Top of Casing Elevation (TOC): 818.41								
Well Info	rmation					Borehole Volume Calculation								
Date Well	l Installed	: 10/22/2014				Water Co	olumn =	6.58	feet					
Total Dep	th of Wel	l:	28.20	feet from	TOC	1 Boreho	ole Volume) =	12.77	gallons				
Depth to 7	Top of Sc	reen:	13.28	feet from	TOC	5 Boreho	le Volume	s =	63.85	gallons				
Length of	Casing S	creened:	14.92	feet		1 borehole v	olume (galloi	ns) = water le	evel thickness (ft) x .16	3 + (0.748 x saturated filter pack thickness); for 2-inch well				
Type of Fo	ormation	Screened:	Alluvium			initial height	of water colu	umn (ft) = tota	al depth (ft) - initial dep	oth to water (ft)				
Developn	nent Metl	hod												
Equipmen	nt:			Method I	Description	n: Well sur	ged with p	ump. Well	l purged dry during	g development.				
Surge	Χ	Bail												
Airlift		Pump	Χ											
Observat	ions Dur	ing Developn	nent											
		Depth to	Total	Fluid R	emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks				
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)				
10/29/14	1118	21.62	NA											
10/30/14	1707	NA	NA	0	I	17.3	7.4	1000		Yellow Brown				
10/30/14	1710	NA	NA	5	5	15.6	7.2	990		Yellow Brown				
10/30/14	1712	NA	NA	5	10	15.8	7.1	1020		Brown Gray				
10/30/14	1714	NA	NA	5	15	16.1	7.0	1040		Brown Gray				
10/30/14	1716	NA	NA	5	20	16.0	7.0	1030		Light Brown Gray				
10/30/14	1718	NA	NA	5	25	15.8	7.0	1040		Cloudy Gray				
10/30/14	1719	NA	NA	5	30	15.2	7.0	1040		Cloudy				
10/30/14	1720	NA	NA	2	32	16.1	6.9	1040		Cloudy-Clear				
				WELL P	URGED D	RY	T	T						
*from TOC unless										091294 Form WCLOPS-				

*from TOC unless otherwise noted in Remarks 091294 Form WCl OP6-1

Project I	Name: KD	HE Neodesha	a	Project I	Number: 8	30435			Well Number: MW-151					
Project I	nformatio	n				Elevatio	n of Moni	toring We	ell					
Facility N	lame: Forr	mer Refinery/E	BP Remediati	on Building	9	Ground Su	ırface Eleva	tion (GS):	820.41					
Location	37.43019	929 -95.6859	8230□			Top of Cas	Top of Casing Elevation (TOC): 819.89							
Well Info	rmation					Borehole Volume Calculation								
Date We	ll Installed	: 10/22/2014				Water Co	olumn =	6.04	4 feet					
Total De	oth of Wel	l:	29.10	feet from	TOC	1 Boreho	ole Volume	: =	12.63 gallons					
Depth to	Top of Sc	reen:	14.24	feet from	TOC	5 Boreho	le Volume	s =	63.17 gallons					
	f Casing S		14.86	feet		1 borehole v	olume (galloi	ns) = water le	level thickness (ft) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well					
Type of F	ormation	Screened:	Alluvium			initial height	of water colu	umn (ft) = tota	otal depth (ft) - initial depth to water (ft)					
Develop	ment Met	hod												
Equipme		·	1	Method [Description	n: Well sur	ged with p	ump. Well	ll purged dry during development.					
Surge	Χ	Bail												
Airlift		Pump	Χ											
Observa	tions Dur	ing Developr	ment			•		T						
		Depth to	Total	Fluid Re		Temp.	рН	S.C.	Fluid Appearance and Remarks					
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)	(turbidity, color, odor, etc.)					
10/29/14	1108	23.06	NA											
10/30/14	1732	NA	NA		ı	16.6	7.2	1030	Yellow Brown					
10/30/14	1735	NA	NA		5.0	16.4	7.1	1070.00						
10/30/14	1736	NA	NA		10.0	16.3	7.0	1060.00	·					
10/30/14	1738	NA	NA		15.0	16.3	6.9	1070.00	,					
10/30/14	1740	NA	NA		20	15.7	6.9	1080	Cloudy Brown					
10/30/14	1742	NA	NA		25.0	15.9	6.9	1080.00	, ,					
10/30/14	1743	NA	NA		30.0	16.0	6.8	1070.00	Cloudy-Clear					
			ı	WELL P	URGED D	RY		1						
	ss otherwise not								091294 Form WCI 0P6					

*from TOC unless otherwise noted in Remarks 091294 Form WCl OP6-1

Project I	Name: KD	HE Neodesha	Э	Project	Number: 8	30435			Well Nun	nber: MW-152			
Project I	nformatio	n				Elevatio	n of Moni	toring We	II				
Facility N	lame: Forr	mer Refinery/E	BP Remediati	on Buildin	9	Ground Su	ırface Eleva	ation (GS):	815.18				
Location	37.4297	1790 -95.6879	94460□			Top of Cas	sing Elevation	on (TOC):	814.83				
Well Info	rmation					Borehole Volume Calculation							
Date We	ll Installed	: 10/17/2014				Water Co	olumn =	8.42	feet				
Total De	oth of Wel	l:	22.78	feet from	TOC	1 Boreho	ole Volume) =		11.47 gallons			
Depth to	Top of Sc	reen:	9.90	feet from	TOC	5 Boreho	le Volume	s =		57.35 gallons			
Length o	f Casing S	Screened:	12.88	feet		1 borehole v	olume (gallo	ns) = water le	vel thickness	s (ft) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well			
Type of F	ormation	Screened:			initial height	of water colu	umn (ft) = tota	al depth (ft) -	initial depth to water (ft)				
Develop	ment Met	hod	_				_		_				
Equipme	nt:			Method I	Description	n: Well sur	ged with p	ump. Well	purged di	y during development.			
Surge	Χ	Bail											
Airlift		Pump	Х										
Observa	tions Dur	ing Developr	nent										
		Depth to	Total	Fluid R	emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks			
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)			
10/29/14	1245	14.36	NA										
10/31/14	1354	NA	NA	0	I	16.0	7.6	720		Brown, Turbid, Sheen			
10/31/14	1357	NA	NA	5	5	16.2	7.2	780		Brown, Turbid, Sheen			
10/31/14	1359	NA	NA	5	10	16.4	7.1	770		Brown, Turbid			
10/31/14	1402	NA	NA	5	15	16.6	6.9	750		Brown, Turbid			
10/31/14	1405	NA	NA	5	20	16.6	6.9	750		Brown, Turbid			
10/31/14	1407	NA	NA	5	25	16.5	6.9	750		Cloudy			
			T	WELL P	URGED D	RY	1	1					
										004204 Form WCLOBS			

Project I	Name: KD	HE Neodesha	a	Project	Number: 8	80435			Well Number:	MW-153			
Project I	Informatio	n				Elevatio	n of Moni	toring We	II				
Facility N	Name: Forr	ner Refinery/E	3P Remediati	on Buildin	9	Ground St	ırface Eleva	ation (GS):	800.42				
Location	: 37.42185	135 -95.6820	7211 🗆			Top of Cas	sing Elevation	on (TOC):	799.96				
Well Info	ormation					Borehole Volume Calculation							
Date We	ell Installed	: 10/24/2014				Water C	olumn =	9.44	feet				
Total De	pth of Wel	l:	18.01	feet from	TOC	1 Boreho	ole Volume	e =	10.8	7 gallons			
Depth to	Top of Sc	reen:	6.11	feet from	TOC	5 Boreho	le Volume	s =	54.3	4 gallons			
ŭ	of Casing S		11.90	feet		1 borehole v	olume (galloi	ns) = water le	vel thickness (ft) x .1	63 + (0.748 x saturated filter pack thickness); for 2-inch well			
Type of F	Formation	Screened:	Alluvium			initial height	of water colu	umn (ft) = tota	al depth (ft) - initial de	epth to water (ft)			
Develop	ment Met	hod		ı									
Equipme				Method I	Description	n: Well sur	ged with p	ump. Well	purged dry durir	ng developlement.			
Surge	Х	Bail											
Airlift		Pump	Х										
Observa	tions Dur	ing Developn		ı		<u> </u>	1	T	T T				
		Depth to	Total	Fluid R		Temp.	pН	S.C.		Fluid Appearance and Remarks			
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)			
10/29/14	1430	8.57	NA NA			00.0	7.5	0.40		V.II. B			
10/30/14	1253	NA	NA NA	0	<u> </u>	20.8	7.5	940		Yellow Brown			
10/30/14	1257	NA	NA NA	5	5	21.7	7.5	810		Yellow Brown			
10/30/14	1303	NA	NA NA	3	8	21.6	7.4	810		Light Yellow Brown			
10/30/14	1305	NA	NA	2	10	21.5	7.4	800		Light Cloudy Gray			
				VVELLP	URGED D	ik i							
						-							
						-							
]					

Project I	Name: KD	HE Neodesha	<u> </u>	Project	Number: 8	30435			Well Number:	MW-154			
Project I	Informatio	n				Elevatio	n of Moni	toring We	II				
Facility N	Name: For	mer Refinery/I	BP Remediati	on Buildin	9	Ground Su	ırface Eleva	ation (GS):	807.68				
Location	: 37.42379	9268 -95.6875	0118□			Top of Cas	sing Elevation	on (TOC):	807.16				
Well Info	ormation					Borehole Volume Calculation							
Date We	ell Installed	: 10/23/2014				Water C	olumn =	5.46	feet				
Total De	pth of Wel	l:	19.82	feet from	TOC	1 Boreho	ole Volume) =	12.5	59 gallons			
l 	Top of Sc		4.90	feet from	TOC	5 Boreho	le Volume	s =	62.9	94 gallons			
	of Casing S		14.92	feet		1 borehole v	olume (galloi	ns) = water le	evel thickness (ft) x	.163 + (0.748 x saturated filter pack thickness); for 2-inch well			
Type of F	Formation	Screened:	Alluvium			initial height	of water colu	umn (ft) = tota	al depth (ft) - initial o	depth to water (ft)			
Develop	ment Met	hod											
Equipme		1	T	Method I	Description	n: Well sur	ged with p	ump. Well	purged dry dur	ing development.			
Surge	Х	Bail											
Airlift		Pump	Х										
Observa	ations Dur	ing Developr				T	1	T					
		Depth to	Total	Fluid R		Temp.	рН	S.C.		Fluid Appearance and Remarks			
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)			
10/29/14	1250	14.36	NA			40.0		222					
10/30/14	1520	NA	NA	0	l e	19.9	7.7	890		Brown			
10/30/14	1529	NA	NA	3	3	19.9	7.1	890		Light Brown			
10/30/14	1535	NA	NA	2	4	20.2 7.0 870 Cloudy Brown							
				WELL P	URGED D	RY	Ī						

Project I	Name: KD	HE Neodesha	a	Project l	Number: 8	80435			Well Number:	MW-155			
Project I	nformatio	n				Elevatio	n of Moni	toring We	II				
Facility N	lame: Forr	ner Refinery/E	BP Remediati	on Buildin	9	Ground St	urface Eleva	ation (GS):	811.33				
Location	: 37.42264	383 -95.6862	8953□			Top of Cas	sing Elevati	on (TOC):	810.94				
Well Info	ormation					Borehole Volume Calculation							
Date We	II Installed	: 10/23/2014				Water C	olumn =	5.95	feet				
Total De	pth of Wel	l:	24.40	feet from	TOC	1 Boreho	ole Volume) =	12.3	1 gallons			
Depth to	Top of Sc	reen:	9.94	feet from	TOC	5 Boreho	le Volume	s =	61.5	3 gallons			
	f Casing S		14.46	feet		1 borehole v	olume (gallo	ns) = water le	evel thickness (ft) x .1	63 + (0.748 x saturated filter pack thickness); for 2-inch well			
Type of I	ormation	Screened:	Alluvium			initial height	t of water col	umn (ft) = tota	al depth (ft) - initial de	epth to water (ft)			
Develop	ment Met	hod		ı									
Equipme				Method I	Description	n: Well sur	ged with p	ump. Well	l purged dry durii	ng development.			
Surge	X	Bail											
Airlift		Pump	Х										
Observa	tions Dur	ing Developn		ı		T	1	T	1				
		Depth to	Total		emoved	Temp.	pН	S.C.		Fluid Appearance and Remarks			
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)			
10/29/14	1420	18.45	NA			40.0		1100		V.II. B			
10/30/14	1600	NA	NA	0	-	18.8	7.4	1180		Yellow Brown			
10/30/14	1603	NA	NA	5	5	17.4	7.2	1240		Yellow Brown			
10/30/14	1611	NA	NA	5	10	17.6	7.1	1180		Light Yellow Brown			
10/30/14	1615	NA	NA	2	12	17.4	7.0	1190		Light Cloudy Brown			
				VELLP	URGED D	I T	1	1					
								-					
										004204 Form WCLOBS 4			

Project I	Name: KD	HE Neodesha	a	Project I	Number: 8	80435			Well Number:	MW-156			
Project I	nformatio	n				Elevatio	n of Moni	toring We	II				
Facility N	lame: Forr	ner Refinery/E	BP Remediati	on Building	9	Ground St	urface Eleva	ation (GS):	809.09				
Location	: 37.42111	300 -95.6868	6319□			Top of Cas	sing Elevati	on (TOC):	808.49				
Well Info	ormation					Borhole Volume Calculation							
Date We	II Installed	: 10/23/2014				Water C	olumn =	5.87	feet				
Total De	pth of Wel	l:	21.85	feet from	TOC	1 Boreho	ole Volume) =	10.6	8 gallons			
Depth to	Top of Sc	reen:	9.45	feet from	TOC	5 Boreho	le Volume	s =	53.3	9 gallons			
	f Casing S		12.40	feet		1 borehole v	olume (gallo	ns) = water le	evel thickness (ft) x .1	63 + (0.748 x saturated filter pack thickness); for 2-inch well			
Type of I	ormation	Screened:	Alluvium			initial height	t of water col	umn (ft) = tota	al depth (ft) - initial de	epth to water (ft)			
Develop	ment Met	hod		1									
Equipme				Method [Description	n: Well sur	ged with p	ump. Well	l purged dry durii	ng development.			
Surge	X	Bail											
Airlift		Pump	Х										
Observa	tions Dur	ing Developn		1			1		1				
		Depth to	Total	Fluid Re		Temp.	рН	S.C.		Fluid Appearance and Remarks			
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)			
10/29/14	1415	15.98	NA	_									
10/30/14	1639	NA	NA	0	ı	18.1	7.1	2400		Brown, Sheen			
10/30/14	1644	NA	NA	3	3	17.3	7.1	1380		Light Brown, Sheen			
10/30/14	1646	NA	NA	2	5	17.4	6.9	1380		Cloudy Brown, Sheen			
10/30/14	1649	NA	NA	2.5	7.5	17.3	7.0	1350		Cloudy Gray-Clear			
				WELL P	URGED D	RY	T	I					
										004204 Form WCLODG 4			

Project	Name: KD	HE Neodesha	Э	Project	Number: 8	80435			Well Numb	er: MW-157				
Project I	Informatio	n				Elevatio	n of Moni	toring We	II					
Facility N	lame: Forr	ner Refinery/l	BP Remediati	on Buildin	9	Ground Su	ırface Eleva	ation (GS):	812.51					
Location	: 37.42054	442 -95.6850	3695□			Top of Cas	sing Elevation	on (TOC):	811.96					
Well Info	ormation					Borehole	• Volume	Calculatio	n					
Date We	ll Installed	: 10/23/2014				Water C	olumn =	4.63	feet					
Total De	pth of Wel	<u> </u> :	24.33	feet from	TOC	1 Boreho	ole Volume) =		12.45 gallons				
Depth to	Top of Sc	reen:	9.41	feet from	TOC	5 Boreho	le Volume	s =	(62.26 gallons				
Length o	f Casing S	creened:	14.92	feet		1 borehole v	olume (gallo	ns) = water le	vel thickness (f	t) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well				
Type of I	Formation	Screened:	Alluvium			initial height of water column (ft) = total depth (ft) - initial depth to water (ft)								
Develop	ment Met	hod												
Equipme	nt:			Method I	Description	n: Well sur	ged with p	ump. Well	purged dry	during development.				
Surge	Х	Bail												
Airlift		Pump	Χ											
Observa	tions Dur	ing Developr	ment			_	_							
		Depth to	Total	Fluid R	emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks				
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)				
10/29/14	1405	19.7	NA											
10/31/14	0933	NA	NA	0	I	14.6	7.3	1260		Brown, Very Turbid				
10/31/14	0936	NA	NA	5	5	15.2	7.2	1480		Brown, Very Turbid				
10/31/14	0940	NA	NA	5	10	15.7	7.2	1440		Cloudy				
10/31/14	0943	NA	NA	5	15	15.8	7.3	1420		Cloudy				
10/31/14	0947	NA	NA	5	20	15.9	7.2	1410		Clear				
10/31/14	0949	NA	NA	3	23	15.9	7.1	1400		Clear				
			I	WELL P	URGED D	RY	Ī	ı						
						ļ								
						ļ								
										004204 Form WCLODE 4				

Project N	lame: KD	HE Neodesha	a	Project	Number: 8	80435			Well Number: MW-158					
Project II	nformatio	n				Elevatio	n of Moni	toring We	ell					
Facility N	ame: Forr	ner Refinery/E	3P Remediati	on Buildin	g	Ground Su	ırface Eleva	ation (GS):	812.28					
Location:	37.41957	448 -95.6847	8630□			Top of Cas	sing Elevation	on (TOC):	811.80					
Well Info	rmation					Borehole Volume Calculation								
Date Wel	l Installed	: 10/23/2014				Water C	olumn =	6.52	2 feet					
Total Dep	oth of Wel	 :	26.06	feet from	TOC	1 Boreho	ole Volume) =	12.74 gallons					
Depth to	Top of Sc	reen:	11.16	feet from	TOC	5 Boreho	le Volume	s =	63.72 gallons					
Length of	Casing S	creened:	14.90	feet		1 borehole v	olume (galloi	ns) = water le	level thickness (ft) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well					
Type of F	ormation	Screened:	Alluvium			initial height	of water colu	umn (ft) = tota	otal depth (ft) - initial depth to water (ft)					
Develop	ment Metl	hod												
Equipmer	nt:			Method I	Description	n: Well sur	ged with p	ump. Well	ell purged dry during development.					
Surge	Χ	Bail												
Airlift		Pump	Χ											
Observat	tions Dur	ing Developr	nent			•		1						
		Depth to	Total		emoved	Temp.	рН	S.C.	Fluid Appearance and Remarks					
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)	(turbidity, color, odor, etc.)					
10/29/14	1405	19.54	NA											
10/31/14	0849	NA	NA	0	I	14.1	7.5	1570	Brown, Very Trurbid					
10/31/14	0851	NA	NA	5	5	15.1	7.2	1540.00						
10/31/14	0853	NA	NA	5	10	16.3	7.1	1520.00						
10/31/14	0855	NA	NA	5	15	15.9	7.1	1500.00	Š ,					
10/31/14	0856	NA	NA	5	20	15.7	7.1	1510	Light Brown, Turbid					
10/31/14	0858	NA	NA	5		25 15.7 7.1 1540.00 Light Brown, Turbid								
10/31/14	0900	NA	NA	5	30	16.3	7.1	1520.00	· ·					
10/31/14	0902	NA	NA	3	33	16.3	7.1	1520.00	Cloudy					
				WELL P	URGED D	RY								
	ss otherwise note								091294 Form WCI O					

*from TOC unless otherwise noted in Remarks 091294 Form WCI OP6-1

Project I	Name: KD	HE Neodesha	a	Project I	Number: 8	80435			Well Nu	umber: MW-159
Project I	nformatio	n				Elevatio	n of Moni	toring We	II	
Facility N	lame: Fori	mer Refinery/E	BP Remediati	on Building	9	Ground St	urface Eleva	ation (GS):	808.10)
Location	: 37.41957	704 -95.6862	6612□			Top of Cas	sing Elevati	on (TOC):	807.65	5
Well Info	ormation					Borehole	e Volume	Calculatio	n	
Date We	II Installed	1: 10/24/2014				Water C	olumn =	4.57	feet	
Total De	pth of Wel	l:	19.65	feet from	TOC	1 Boreho	ole Volume) =		8.58 gallons
Depth to	Top of Sc	reen:	9.65	feet from	TOC	5 Boreho	le Volume	s =		42.92 gallons
Length o	f Casing S	Screened:	10.00	feet		1 borehole v	olume (gallo	ns) = water le	vel thickne	ess (ft) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well
Type of F	ormation	Screened:	Alluvium			initial heigh	t of water col	umn (ft) = tota	al depth (ft)	t) - initial depth to water (ft)
Develop	ment Met	hod								
Equipme	nt:			Method [Description	n: Well sur	ged with p	ump. Well	purged	dry during development.
Surge	Х	Bail								
Airlift		Pump	Χ							
Observa	tions Dur	ing Developr	nent							
		Depth to	Total	Fluid Re	emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)
10/29/14	1400	15.08	NA							
10/31/14	0810	NA	NA	0	I	16.5	7.3	1810		Brown, Very Turbid, Sheen
10/31/14	0812	NA	NA	5	5	17.0	7.1	1710		Brown, Very Turbid, Sheen
10/31/14	0816	NA	NA	5	10	17.5	7.0	1630		Cloudy, Sheen
10/31/14	0819	NA	NA	5	15	16.9	7.0	1640		Cloudy, Sheen
10/31/14	0822	NA	NA	5	20	16.7	7.0	1650		Cloudy
10/31/14	0825	NA	NA	3	23	16.3	7.0	1630		Cloudy
				WELL P	JRGED D	RY				
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*from TOC unless otherwise noted in Remarks

091294 Form WCI OP6-1

Project N	ame: KD	HE Neodesha	a	Project I	Number: 8	30435			Well Num	nber: MW-160
Project In	nformatio	n				Elevatio	n of Moni	toring We	II	
Facility Na	ame: Forn	ner Refinery/E	BP Remediati	on Building	3	Ground Su	ırface Eleva	ntion (GS):	808.03	
Location:	37.41989	675 -95.6884	3699□			Top of Cas	sing Elevation	on (TOC):	810.39	
Well Infor	rmation					Borehole	Volume (Calculatio	n	
Date Well	Installed	: 10/15/2014				Water Co	olumn =	8.69	feet	
Total Dep	th of Well	:	23.38	feet from	TOC	1 Boreho	ole Volume) =		13.08 gallons
Depth to T	Top of Sci	een:	8.50	feet from	TOC	5 Boreho	le Volume:	s =		65.41 gallons
Length of	Casing S	creened:	14.88	feet		1 borehole v	olume (gallor	ns) = water le	evel thickness	(ft) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well
Type of Fo	ormation	Screened:	Alluvium			initial height	of water colu	umn (ft) = tota	al depth (ft) -	initial depth to water (ft)
Developn	nent Meth	nod								
Equipmen	nt:			Method [Description	n: Well sur	ged with p	ump. Well	l purged dr	y during development.
Surge	Χ	Bail								
Airlift		Pump	Χ							
Observat	ions Duri	ng Developr	nent							
		Depth to	Total	Fluid Re	emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)
10/29/14	1350	14.69	NA							
10/31/14	1302	NA	NA	0	I	15.6	7.4	1120		Brown, Turbid, Sheen
10/31/14	1305	NA	NA	5.00	5.0	16.1	7.3	1080.00		Brown, Turbid, Sheen
10/31/14	1307	NA	NA	5.0	10.0	17.4	7.1	1160.00		Brown Gray, Turbid, Sheen
10/31/14	1310	NA	NA	5.0	15.0	17.2	7.1	1140.00		Brown Gray, Turbid
10/31/14	1312	NA	NA	5	20	17.4	7.1	1130		Brown Gray, Turbid
10/31/14	1318	NA	NA	5.00	25.0	17.2	7.1	1140.00		Brown, Cloudy
10/31/14	1320	NA	NA	5.0	30.0	17.2	7.1	1140.00		Brown, Cloudy
10/31/14	1322	NA	NA	5.0	35.0	17.2	7.1	1130.00		Brown, Cloudy
10/31/14	1323	NA	NA	5	40	17.1	7.1	1110		Cloudy
10/31/14	1325	NA	NA	5.00	45.0	17.3	7.0	1120.00		Cloudy
				WELL P	JRGED D	RY		_		
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*from TOC unless otherwise noted in Remarks 091294 Form WCI OP6-1

Project Nar	me: KDH	IE Neodesha	ì	Project I	Number: 8	30435			Well Numb	er: MW-161
Project Info	ormation					Elevatio	n of Monit	toring We	II	
Facility Nam	ne: Form	er Refinery/E	BP Remediati	on Building	9	Ground Su	ırface Eleva	tion (GS):	807.80	
Location: 37	7.419838	31 -95.6895	3042□			Top of Cas	sing Elevation	on (TOC):	809.83	
Well Inform	nation					Borehole	Volume (Calculatio	n	
Date Well Ir	nstalled:	10/15/2014				Water Co	olumn =	8.24	feet	
Total Depth	of Well:		22.01	feet from	TOC	1 Boreho	ole Volume	=	1	13.02 gallons
Depth to To	p of Scre	een:	7.11	feet from	TOC	5 Boreho	le Volumes	S =	6	65.12 gallons
Length of C	asing Sc	reened:	14.90	feet		1 borehole v	olume (gallor	ns) = water le	vel thickness (f	t) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well
Type of For	mation S	creened:	Alluvium			initial height	of water colu	ımn (ft) = tota	al depth (ft) - ini	tial depth to water (ft)
Developme	ent Meth	od								
Equipment:				Method [Description	n: Well sur	ged with p	ump. Well	purged dry	during development.
Surge	Χ	Bail								
Airlift		Pump	Χ							
Observatio	ns Durir	ng Developn	nent							
		Depth to	Total	Fluid Re	emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks
		Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)
l 	1335	13.77	NA							
1	1216	NA	NA	0	I	15.1	7.2	1230		Dark Gray, Turbid, Sheen
	1218	NA	NA	5	5	15.6	7.1	1230		Dark Gray, Turbid, Sheen
l 	1220	NA	NA	5	10	15.5	7.1	1220		Dark Gray, Turbid, Sheen
l 	1222	NA	NA	5	15	15.6	7.1	1200		Dark Gray, Turbid
l 	1226	NA	NA	5	20	15.8	7.1	1190		Brown Gray, Turbid
l 	1228	NA	NA	5	25	15.6	7.1	1200		Brown Gray, Turbid
10/31/14	1230	NA	NA	5	30	15.6	7.1	1180		Brown Gray, Turbid
l	1233	NA	NA	5	35	15.7	7.2	1200	Brown Gray, Turbid	
10/31/14	1235	NA	NA	5	40	15.6	7.1	1210		Gray, Cloudy
10/31/14	1237	NA	NA	5	45	15.5	7.1	1180		Gray, Cloudy
		-		WELL P	URGED D	RY				
	thonuing noted									

*from TOC unless otherwise noted in Remarks 091294 Form WCI OP6-1

Project I	Name: KD	HE Neodesha	Э	Project	Number: 8	30435			Well Number:	MW-162			
Project I	nformatio	n				Elevatio	n of Moni	toring We	II				
Facility N	lame: Forr	mer Refinery/E	BP Remediati	on Buildin	9	Ground Su	ırface Eleva	tion (GS):	805.48				
Location	: 37.41945	229 -95.6910	1483□			Top of Cas	sing Elevation	on (TOC):	805.09				
Well Info	rmation					Borehole Volume Calculation							
Date We	ll Installed	: 10/21/2014				Water Co	olumn =	6.45	feet				
Total De	oth of Wel	l:	15.78	feet from	TOC	1 Boreho	ole Volume	=	9.99	9 gallons			
Depth to	Top of Sc	reen:	4.38	feet from	TOC	5 Boreho	le Volume	S =	49.94	4 gallons			
Length o	f Casing S	Screened:	11.40	feet		1 borehole v	olume (galloi	ns) = water le	evel thickness (ft) x .1	63 + (0.748 x saturated filter pack thickness); for 2-inch well			
Type of F	ormation	Screened:	Alluvium			initial height	of water colu	ımn (ft) = tota	al depth (ft) - initial de	epth to water (ft)			
Develop	ment Met	hod											
Equipme	nt:			Method I	Description	n: Well sur	ged with p	ump. Well	l purged dry durir	ng development.			
Surge	Χ	Bail											
Airlift		Pump	Х										
Observa	tions Dur	ing Developr	ment										
		Depth to	Total	Fluid R	emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks			
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)			
10/29/14	1440	9.33	NA										
10/30/14	1222	NA	NA	0.0	I	19.4	7.7	860		Dark Yellow Brown			
10/30/14	1225	NA	NA	2.5	2.5	21.0	7.4	850		Yellow Brown			
10/30/14	1231	NA	NA	2.5	5.0	20.2	7.5	770		Light Yellow Brown			
10/30/14	1236	NA	NA	2.0	7.0	20.8	7.5	750		Light Yellow Brown			
			Ι	WELL P	URGED D	RY							
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										001204 Form WCLODE 4			

Project I	Name: KD	HE Neodesha	Э	Project	Number: 8	30435			Well Num	nber: MW-163
Project I	nformatio	n				Elevatio	n of Moni	toring We	II	
Facility N	lame: Forr	ner Refinery/l	BP Remediati	on Buildin	9	Ground Su	ırface Eleva	tion (GS):	805.19	
Location	37.42090	572 -95.6914	4425□			Top of Cas	sing Elevation	on (TOC):	804.96	
Well Info	rmation					Borehole	Volume	Calculatio	n	
Date We	ll Installed	: 10/21/2014				Water Co	olumn =	6.97	feet	
Total De	oth of Wel	<u> </u> :	16.21	feet from	TOC	1 Boreho	ole Volume	=		9.60 gallons
Depth to	Top of Sc	reen:	5.41	feet from	TOC	5 Boreho	le Volume	S =		48.02 gallons
Length o	f Casing S	creened:	10.80	feet		1 borehole v	olume (galloi	ns) = water le	vel thickness	(ft) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well
Type of F	ormation	Screened:	Alluvium			initial height	of water colu	ımn (ft) = tota	al depth (ft) -	initial depth to water (ft)
Develop	ment Met	hod								
Equipme	nt:			Method I	Description	n: Well sur	ged with p	ump. Wel	l purged dr	y during development.
Surge	Χ	Bail								
Airlift		Pump	Χ							
Observa	tions Dur	ing Developr	ment							
		Depth to	Total		emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)
10/29/14	917	9.24	NA							
10/31/14	1031	NA	NA	0	I	12.9	7.6	900		Brown Gray, Product
10/31/14	1035	NA	NA	5	5	16.2	7.4	1210		Dark Gray, Sheen
10/31/14	1037	NA	NA	5	10	17.3	7.3	1200		Dark Gray, Sheen
10/31/14	1040	NA	NA	5	15	16.6	7.3	1250		Gray, Turbid
10/31/14	1042	NA	NA	5	20	17.5	7.2	1210		Gray, Turbid
10/31/14	1043	NA	NA	5	25	16.9	7.2	1210		Gray, Cloudy
10/31/14	1048	NA	NA	5	30	16.5	7.2	1220		Cloudy
10/31/14	1051	NA	NA	5	35	16.5	7.2	1180		Cloudy
			T	WELL P	URGED D	RY				
										004204 Form WCLODE 4

Project N	Name: KD	HE Neodesha	9	Project	Number: 8	80435			Well Nu	mber: MW-164				
Project II	nformatio	n				Elevatio	n of Moni	toring We	II					
Facility N	lame: Forr	ner Refinery/E	3P Remediati	on Buildin	g	Ground Su	ırface Eleva	tion (GS):	807.54					
Location:	37.42130	431 -95.6909	6108□			Top of Cas	sing Elevation	on (TOC):	809.91					
Well Info	rmation					Borehole Volume Calculation								
Date Wel	ll Installed	: 10/15/2014				Water C	olumn =	6.60	feet					
Total Dep	oth of Wel	l:	20.61	feet from	TOC	1 Boreho	ole Volume	:=		11.19 gallons				
Depth to	Top of Sc	reen:	7.71	feet from	TOC	5 Boreho	le Volume	S =		55.95 gallons				
	f Casing S		12.90	feet		1 borehole v	olume (galloi	ns) = water le	evel thickne	ss (ft) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well				
Type of F	ormation	Screened:	Alluvium			initial height	of water colu	umn (ft) = tota	al depth (ft)	- initial depth to water (ft)				
Develop	ment Metl	hod												
Equipme				Method I	Description	n: Well sur	ged with p	ump. Wel	l purged o	dry during development.				
Surge	Χ	Bail												
Airlift		Pump	Х											
Observat	tions Dur	ing Developr		1			1	T	1					
		Depth to	Total		emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks				
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)				
10/29/14	1330	14.01	NA											
10/31/14	1126	NA	NA	0	<u> </u>	14.5	7.4	1360		Brown, Turbid, Sheen				
10/31/14	1128	NA	NA	5	5	15.6	7.2	1090		Brown, Turbid, Sheen				
10/31/14	1130	NA	NA NA	5	10	15.7	7.2	1130		Brown, Turbid, Sheen				
10/31/14	1132	NA NA	NA NA	5	15	15.7	7.1	1160		Brown, Turbid				
10/31/14	1133	NA NA	NA NA	5	20	16.2	7.1	1160		Brown, Turbid				
10/31/14	1136	NA NA	NA NA	5	25	15.5	7.1	1180		Brown, Turbid				
10/31/14	1138	NA NA	NA NA	5	30	16.0	7.1	1160		Brown, Turbid				
10/31/14	1140	NA	NA	5	35	15.6	7.1	1150		Cloudy				
-				WELL P	URGED D	rk Y T								
-														

Project I	Name: KD	HE Neodesha	Э	Project	Number:	80435			Well Number:	MW-165
Project I	nformatio	n				Elevatio	n of Moni	toring We	II	
Facility N	lame: Forr	ner Refinery/E	BP Remediati	on Buildin	9	Ground St	urface Eleva	ation (GS):	810.26	
Location	: 37.42160	192 -95.6898	37970□			Top of Cas	sing Elevati	on (TOC):	812.42	
Well Info	ormation					Borehole	e Volume	Calculatio	on	
Date We	II Installed	: 10/15/2014				Water C	olumn =	9.27	feet	
Total De	pth of Wel	l:	24.37	feet from	TOC	1 Boreho	ole Volume) =	13.21	gallons
Depth to	Top of Sc	reen:	9.45	feet from	TOC	5 Boreho	le Volume	s =	66.04	gallons
Length o	f Casing S	Screened:	14.92	feet		1 borehole v	olume (gallo	ns) = water le	evel thickness (ft) x .163	3 + (0.748 x saturated filter pack thickness); for 2-inch well
Type of F	ormation	Screened:	Alluvium			initial heigh	t of water col	umn (ft) = tota	al depth (ft) - initial dep	th to water (ft)
Develop	ment Met	hod				-				
Equipme	nt:			Method I	Description	n: Well sur	ged with p	ump. Well	l purged dry during	g development.
Surge	X	Bail								
Airlift		Pump	Χ							
Observa	tions Dur	ing Developn	ment	_				_		
		Depth to	Total	Fluid R	emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)
10/29/14	1340	15.10	NA							
10/30/14	1420	NA	NA	0	I	18.3	7.3	970		Gray Brown
10/30/14	1421	NA	NA	5	5	18.4	7.0	960		Gray Brown
10/30/14	1424	NA	NA	5	10	18.2	7.1	1060		Brown Gray
10/30/14	1429	NA	NA	5	15	18.6	7.1	1070		Cloudy-Clear
10/30/14	1433	NA	NA	2.5	17.5	18.2	7.1	1080		Clear
			Г	WELL P	URGED D	RY	T	1		
		ed in Remarks								091294 Form WCI OPS-

*from TOC unless otherwise noted in Remarks 091294 Form WCI OP6-1

Project N	Name: KD	HE Neodesha	a	Project l	Number: 8	80435			Well Number:	MW-166					
Project I	nformatio	n				Elevatio	n of Moni	toring We	II						
Facility N	lame: Forr	ner Refinery/E	BP Remediati	on Buildin	g	Ground Su	ırface Eleva	ation (GS):	809.17						
Location:	37.42244	290 -95.6884	1207□			Top of Cas	sing Elevation	on (TOC):	808.69						
Well Info	ormation					Borehole Volume Calculation									
Date We	ll Installed	: 10/20/2014				Water C	olumn =	7.77	feet						
Total Dep	oth of Wel	l:	18.60	feet from	TOC	1 Boreho	ole Volume	e =	12.2	20 gallons					
Depth to	Top of Sc	reen:	4.66	feet from	TOC	5 Boreho	le Volume	s =	60.9	98 gallons					
	f Casing S		13.94	feet		1 borehole v	olume (gallo	ns) = water le	evel thickness (ft) x .	163 + (0.748 x saturated filter pack thickness); for 2-inch well					
Type of F	ormation	Screened:	Alluvium			initial height	of water colu	umn (ft) = tota	al depth (ft) - initial o	depth to water (ft)					
Develop	ment Met	hod													
Equipme	nt:			Method [Description	n: Well sur	ged with p	ump. Well	l purged dry dur	ing development.					
Surge	Х	Bail													
Airlift		Pump	Х												
Observa	tions Dur	ing Developr					1	1	1						
		Depth to	Total		emoved	Temp.	pН	S.C.		Fluid Appearance and Remarks					
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)					
10/29/14	1250	10.83	NA												
10/30/14	1353	NA	NA	0	I	19.2	7.8	980		Cloudy Gray, Sheen					
10/30/14	1356	NA	NA	5	5	19.1	7.6	1110		Brown Gray, Sheen					
10/30/14	1358	NA	NA	5	10	20.2	7.8	1010		Gray, Sheen					
10/30/14	1404	NA	NA	5	15	19.5	7.8	1010		Cloudy Gray, Sheen					
10/30/14	1409	NA	NA	2	17	19.3	7.8	990		Cloudy Light Gray, Sheen					
				WELL P	URGED D	RY T		I							

Project	Name: KD	HE Neodesha	Э	Project	Number: 8	30435			Well Nu	mber: MW-167						
Project I	Informatio	n				Elevatio	n of Moni	toring We	II							
Facility N	Name: Forr	ner Refinery/l	BP Remediati	on Buildin	g	Ground Su	ırface Eleva	ation (GS):	804.28							
Location	: 37.42329	858 -95.6896	4069□			Top of Cas	sing Elevation	on (TOC):	806.80							
Well Info	ormation					Borehole Volume Calculation										
Date We	ell Installed	: 10/16/2014				Water C	olumn =	9.85	feet							
Total De	pth of Wel	<u> </u> :	16.85	feet from	TOC	1 Boreho	ole Volume) =		8.58 gallons						
Depth to	Top of Sc	reen:	7.95	feet from	TOC	5 Boreho	le Volume	s =		42.92 gallons						
Length o	f Casing S	creened:	8.90	feet		1 borehole v	olume (gallo	ns) = water le	vel thicknes	ss (ft) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well						
Type of I	Formation	Screened:	Alluvium			initial height	of water col	umn (ft) = tota	al depth (ft)	- initial depth to water (ft)						
Develop	ment Met	hod														
Equipme	ent:			Method I	Description	n: Well sur	ged with p	ump. Well	purged o	dry during development.						
Surge	Х	Bail														
Airlift		Pump	Х													
Observa	tions Dur	ing Developr	ment			_	_									
		Depth to	Total		emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks						
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)						
10/29/14	1355	7.00	NA													
10/30/14	118	NA	NA	0	I	18.6	6.7	1060		Clear						
10/30/14	1151	NA	NA	6	6	18.7	6.7	1040		Gray Brown						
10/30/14	1157	NA	NA	2	8	19.7	6.7	1000		Light Gray Brown						
			I	WELL P	URGED D	RY	I	ı								
						ļ										
										004204 Form WCLODE 4						

Project Name: KDHE Neodesha Project Number: 80						30435			Well Number	: MW-168			
Project Information						Elevation of Monitoring Well							
Facility Name: Former Refinery/BP Remediation Building						Ground Surface Elevation (GS): 806.08							
Location: 37.42409752 -95.68842566 □						Top of Cas	sing Elevation	on (TOC):	805.74				
Well Info	Well Information						Volume	Calculatio	n				
Date Well Installed: 10/14/2014						Water Co	olumn =	8.99	feet				
Total Dep	oth of Wel	<u> </u> :	16.18	feet from	TOC	1 Boreho	ole Volume	=	9	.31 gallons			
Depth to	Top of Sc	reen:	6.18	feet from	TOC	5 Boreho	le Volume	S =	46	.53 gallons			
Length of	f Casing S	creened:	10.00	feet		1 borehole v	olume (galloi	ns) = water le	evel thickness (ft)	x .163 + (0.748 x saturated filter pack thickness); for 2-inch well			
Type of F	ormation	Screened:	Alluvium			initial height	of water colu	umn (ft) = tota	al depth (ft) - initia	depth to water (ft)			
Develop	ment Met	hod											
Equipme	nt:			Method I	Description	n: Well sur	ged with p	ump. Wel	l purged dry du	rring development.			
Surge	Χ	Bail											
Airlift		Pump	Х										
Observa	tions Dur	ing Developr	nent										
		Depth to	Total	Fluid R	emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks			
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)			
10/29/14	1255	7.19	NA										
10/30/14	1322	NA	NA	0	I	21.2	7.3	880		Cloudy Gray Brown, Sheen			
10/30/14	1324	NA	NA	5	5	20.4	7.1	820		Dark Gray Brown			
10/30/14	1327	NA	NA	3	8	19.9	7.2	780		Gray Brown			
10/30/14	1329	NA	NA	2	10	20.8	7.1	770		Gray Brown			
10/30/14	1333	NA	NA	3	13	19.9	7.1	740		Light Gray Brown			
10/30/14	1335	NA	NA	2	15	20.1	7.0	740		Light Gray Brown			
10/30/14	1340	NA	NA	5	20	19.5	7.1	750		Light Cloudy Gray			
			T	WELL P	URGED D	RY							
										004204 Form WCLOBS 4			

Project Name: KDHE Neodesha Project Number: 80									Well Number:	MW-169			
Project Information						Elevatio	Elevation of Monitoring Well						
Facility Name: Former Refinery/BP Remediation Building						Ground St	Ground Surface Elevation (GS): 803.95						
Location: 37.42423519 -95.69294219 □						Top of Cas	sing Elevation	on (TOC):	803.60				
Well Info	rmation					Borehole	• Volume	Calculatio	n				
Date Wel	Date Well Installed: 10/20/2014						olumn =	11.06	feet				
Total Dep	oth of Wel	:	14.35	feet from	TOC	1 Boreho	ole Volume) =	9.2	5 gallons			
Depth to	Top of Sc	reen:	4.85	feet from	TOC	5 Boreho	le Volume	s =	46.2	5 gallons			
Length of	f Casing S	creened:	9.50	feet		1 borehole v	olume (gallo	ns) = water le	evel thickness (ft) x .	163 + (0.748 x saturated filter pack thickness); for 2-inch well			
Type of F	ormation	Screened:	Alluvium			initial height	of water col	umn (ft) = tota	al depth (ft) - initial d	epth to water (ft)			
Develop	ment Metl	nod											
Equipme	nt:			Method I	Description	n: Well sur	ged with p	ump. Well	purged dry duri	ng development.			
Surge	Χ	Bail											
Airlift		Pump	Χ										
Observations During Development													
		Depth to	Total	Fluid R	emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks			
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)			
10/29/14	1320	3.29	NA										
10/30/14	1120	NA	NA	0	I	19.6	7.3	1360		Dark Gray Brown, Sheen			
10/30/14	1122	NA	NA	7	7	20.0	7.0	1140		Gray Brown, Sheen			
10/30/14	1125	NA	NA	4	11	19.8	7.0	1070		Gray Brown, Sheen			
10/30/14	1129	NA	NA	4	15	19.5	7.0	1060		Gray Brown, Sheen			
10/30/14	1135	NA	NA	10	25	18.9	7.1	1060		Light Cloudy Gray, Sheen			
				WELL P	URGED D	RY	ı	1					

Project Name: KDHE Neodesha Project Number: 80						30435			Well Numb	per : MW-170		
Project Information						Elevation of Monitoring Well						
Facility Name: Former Refinery/BP Remediation Building						Ground Surface Elevation (GS): 805.06						
Location: 37.42507256 -95.69376966 □						Top of Cas	sing Elevation	on (TOC):	807.63			
Well Info	Well Information						Volume (Calculatio	n			
Date Well Installed: 10/20/2014						Water Co	olumn =	11.88	feet			
Total Dep	pth of Wel	l:	17.28	feet from	TOC	1 Boreho	ole Volume	=		9.35 gallons		
Depth to	Top of Sc	reen:	7.83	feet from	TOC	5 Boreho	le Volume:	S =	•	46.73 gallons		
	f Casing S			feet		1 borehole v	olume (gallor	ns) = water le	vel thickness (f	t) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well		
Type of F	ormation	Screened:	Alluvium			initial height	of water colu	ımn (ft) = tota	al depth (ft) - ini	itial depth to water (ft)		
Develop	ment Met	hod		1								
Equipme				Method I	Description	n: Well sur	ged with p	uimp. Wel	II purged dry	during development.		
Surge	Х	Bail										
Airlift		Pump	Х									
Observa	tions Dur	ing Developr		I			I		I I			
		Depth to	Total	-	emoved	Temp.	pН	S.C.		Fluid Appearance and Remarks		
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)		
10/29/14	1314	5.40	NA NA	0		40.0	7.0	4000		Disal. Chass		
10/30/14	1033	NA NA	NA NA	0	- 1	18.3	7.0	1220		Black, Sheen		
10/30/14 10/30/14	1038 1045	NA NA	NA NA	6 14	6 20	18.7 19.5	6.9 7.0	1430 1450		Dark Gray Light Gray Cloudy		
10/30/14	1045	NA NA	NA NA	5	25	19.5	7.0	1460				
10/30/14	1051	INA	INA	<u> </u>	URGED D							
				VVLLL	ONGLUU							
السيييا	*from TOC unless otherwise acted in Demodus									001204 Form WCLOBS 1		

Project Name: KDHE Neodesha Project Number: 80						30435			Well Number	: MW-171				
Project Information						Elevation of Monitoring Well								
Facility Name: Former Refinery/BP Remediation Building						Ground Su	Ground Surface Elevation (GS): 804.82							
Location: 37.42691918 -95.69426374 □						Top of Cas	sing Elevation	on (TOC):	807.02					
Well Info	Well Information						• Volume	Calculatio	n					
Date Well Installed: 10/21/2014						Water Co	olumn =	7.89	feet					
Total De	pth of Wel	l:	12.89	feet from	TOC	1 Boreho	ole Volume) =	5	5.53 gallons				
Depth to	Top of Sc	reen:	7.48	feet from	TOC	5 Boreho	le Volume	s =	27	.64 gallons				
	of Casing S			feet		1 borehole v	olume (gallo	ns) = water le	evel thickness (ft)	x .163 + (0.748 x saturated filter pack thickness); for 2-inch well				
Type of F	Formation	Screened:	Alluvium			initial height	of water col	umn (ft) = tota	al depth (ft) - initia	I depth to water (ft)				
Develop	ment Met	hod												
Equipme	ent:		T	Method [Description	n: Well sur	ged with p	ump. Well	l purged dry du	uring development.				
Surge	Х	Bail												
Airlift		Pump	Χ											
Observa	tions Dur	ing Developr				•	T							
		Depth to	Total		emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks				
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)				
10/29/14	1051	5.00	NA											
10/29/14	1159	NA	NA	0	l	17.5	6.6	970		Very Turbid				
10/29/14	NA	NA	NA	10	10	17.9	6.8	920		Lightly Turbid				
			T.	WELL P	URGED D	RY	1	I						
										004204 Form WCLODG 4				

Project Name: KDHE Neodesha Project Number: 80						30435			Well Nur	mber: MW-172				
Project Information						Elevatio	Elevation of Monitoring Well							
Facility Name: Former Refinery/BP Remediation Building						Ground Su	Ground Surface Elevation (GS): 821.40							
Location: 37.43131633 -95.69271604 □						Top of Cas	sing Elevation	on (TOC):	821.10					
Well Info	Well Information						Volume	Calculatio	n					
Date We	Date Well Installed: 10/20/2014						olumn =	18.38	feet					
Total De	pth of Wel	l:	22.93	feet from	TOC	1 Boreho	ole Volume	e =		17.04 gallons				
Depth to	Top of Sc	reen:	5.02	feet from	TOC	5 Boreho	le Volume	s =		85.19 gallons				
	of Casing S		17.91	feet		1 borehole v	olume (galloi	ns) = water le	vel thicknes	ss (ft) x .163 + (0.748 x saturated filter pack thickness); for 2-inch well				
Type of I	Formation	Screened:	Alluvium			initial height	of water colu	umn (ft) = tota	al depth (ft)	- initial depth to water (ft)				
Develop	ment Met	hod												
Equipme		•		Method I	Description	n: Well sur	ged with p	ump. Well	purged d	dry during development.				
Surge	Х	Bail												
Airlift		Pump	Х											
Observa	tions Dur	ing Developr				T		1	1					
		Depth to	Total		emoved	Temp.	рН	S.C.		Fluid Appearance and Remarks				
Date	Time	Water* (ft)	Depth* (ft)	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)				
10/29/14	1055	4.55	NA											
10/29/14	1535	NA	NA	0	1	18.2	7.1	1040		Dark Brown				
10/29/14	1538	NA	NA	10	10	17.4	7.0	1000		Medium Brown				
10/29/14	1540	NA	NA	5	15	17.3 7.0 990 Medium Brown								
				WELL P	URGED D	RY		l						
										004204 Form WCLODG 4				

Project Name: KDHE Neodesha Project Number: 86									Well Number:	MW-173			
Project Information						Elevatio	Elevation of Monitoring Well						
Facility Name: Former Refinery/BP Remediation Building						Ground St	Ground Surface Elevation (GS): 806.60						
Location: 37.41916860 -95.68892032 □						Top of Cas	sing Elevation	on (TOC):	809.06				
Well Information						Borehole	e Volume	Calculatio	n				
Date Well Installed: 10/16/2014						Water C	olumn =	8.81	feet				
Total De	pth of Wel	l:	22.00	feet from	TOC	1 Boreho	ole Volume) =	11.4	3 gallons			
Depth to	Top of Sc	reen:	9.25	feet from	TOC	5 Borehol	e Volumes	S =	57.1	6 gallons			
ŭ	f Casing S		12.75	feet		11				63 + (0.748 x saturated filter pack thickness); for 2-inch well			
			Alluvium			initial height	t of water colu	umn (ft) = tota	al depth (ft) - initial de	epth to water (ft)			
•	ment Met	hod		ı									
Equipme				Method I	Description	n: Well sur	ged with p	ump. Well	l purged dry durii	ng development.			
Surge	Х	Bail											
Airlift		Pump	Х										
Observa	tions Dur	ing Developn		I		г_	ı						
Б.	-	Depth to	Total	Fluid R		Temp.	pΗ	S.C.		Fluid Appearance and Remarks			
Date 10/29/14	Time 1340	Water* (ft) 13.19	Depth* (ft) NA	Gallons	Total	(°C)	(units)	(µS/cm)		(turbidity, color, odor, etc.)			
10/29/14	1444	13.19 NA	NA NA	0	1	18.2	7.3	2200		Light Gray			
10/30/14	1446	NA NA	NA NA	5	5	17.3	7.3	1830		Brown Gray			
10/30/14	1452	NA NA	NA NA	3	8	17.3	7.1	1750		Brown Gray			
10/30/14	1456	NA	NA NA	3	10	17.7	7.2	1710		Brown Gray			
10/30/14	1503	NA	NA	3	13	17.5	7.1	1710		Brown Gray			
10,00,14	1000	14/1	14/1		URGED D	1	7.1	17.10		Diomi Giay			
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